Bachelor of Science in Environmental Science

The Bachelor of Science in Environmental Science degree program is designed for students interested in an interdisciplinary scientific perspective on environmental and sustainability issues, analysis, and management. The degree program provides the broad foundation in physical, life, and social sciences needed for a career or graduate study in environmental science and related fields such as climate change, ecology, and conservation. Students who complete the program successfully will be able to assess environmental issues critically from multiple perspectives; to perform field, laboratory, and computer analyses; and to conduct original research. The program is designed to prepare graduates for careers in local, state, and federal government laboratories and nonprofit agencies, environmental consulting firms, environmental education and outreach agencies, and universities and other research settings. The degree is offered by the College of Natural Sciences with a major in biological sciences, by the College of Liberal Arts with a major in geographical sciences, and by the Jackson School of Geosciences with a major in geosciences. The degree programs share common prescribed work, but each degree has its own specific requirements. Students may earn only one Bachelor of Science in Environmental Science degree from the University.

The Bachelor of Science in Environmental Science degree requires 126 total semester credit hours of coursework. All students must complete the University's Core Curriculum. The specific degree requirements consist of prescribed work, major requirements, and electives. In some cases, a course that is required for the degree may also be counted toward the core curriculum.

A course in one prescribed work area may not also be used to fulfill the requirements of another prescribed work area; the only exception to this rule is that a course that fulfills another requirement may also be used to fulfill a flag requirement unless otherwise specified.

In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete the following Skills and Experience flags:

a. Writing: three flagged courses beyond Rhetoric and Writing 306 or its equivalent; students in the College of Natural Sciences and the Jackson School of Geosciences must complete only two flagged writing courses. For students in the College of Natural Sciences and the College of Liberal Arts, at least one writing flag must be from an upper-division course.
b. Quantitative reasoning: one flagged course
c. Global cultures: one flagged course
d. Cultural diversity in the United States: one flagged course
e. Ethics: one flagged course
f. Independent inquiry: one flagged course

Prescribed Work Common to All Majors

a. Introductory course: Environmental Science 301
b. Field experience and research methods: Environmental Science 311
c. Environment and sustainability coursework:
    i. One environment and sustainability course: Business, Government, and Society 325, 372, Finance 372T, Geography 309C, 320J, 342C, 342N, or 344G.
    ii. One geographic information systems course: Geography 460G, 462K, or Geological Sciences 327G.
    iii. Two earth system courses: Geological Sciences 416W and one course chosen from Geography 330W, 301K, Geological Sciences 347D, 370E, 476K, 476M, 376S, or 377P.
    iv. Two computational science courses chosen from: Geography 462K, 464K, 368C, 369D, 470C, 370D, Geological Sciences 325G, 352P, 455S, Petroleum and Geosystems Engineering 338, Statistics and Data Sciences 320E, 320H, 321, Biological sciences majors must take Statistics and Data Sciences 320E, 320H, or 321
    v. Please note:
        - Geographical sciences majors may not use the same coursework to satisfy both requirements 3 and 11.
        - Geosciences majors may not use the same coursework to satisfy both requirements 3 and 12.
        - Students may not use the same coursework to satisfy both requirements 3 and 5.
d. Courses in each of the following environmental science areas:
    i. Geological Sciences: Geological Sciences 401 or 303.
    ii. Geography: Geography 412E.
    iii. Ecology: Two courses chosen from Integrative Biology 373 or Marine Science 320 and Integrative Biology 373L or Marine Science 120L. Biological sciences majors must choose Integrative Biology 373 and 373L.
e. Capstone Research Experience chosen from one of the following pairs:
    i. Environmental Science 271 and 371 or 171 and 471.
    ii. Environmental Science 172C and 472D or 272C and 372D.
    iii. Environmental Science 271 or Marine Science 370, and one course chosen from: Chemistry 320M, Geography 460G, 462K, 368C, Geological Sciences 327G, Mathematics 408D, 408M, Statistics and Data Sciences 320E, 320H, or 321.
    iv. Please note:
        - Geographical sciences majors may not use the same coursework to satisfy both requirements 5 and 11.
        - Geosciences majors may not use the same coursework to satisfy both requirements 5 and 11.
        - Geosciences majors may not use the same coursework to satisfy both requirements 5 and 12.
        - Students may not use the same coursework to satisfy both requirements 3 and 5.
        - Statistics and Data Sciences 320E, 320H, and 321 may not be used in this requirement by students in the College of Natural Sciences.
        - Biology 377 may substitute for Environmental Science 271 with prior approval of the faculty advisor.
        - Tutorial Course 660HA and 660HB may substitute for Environmental Science 271 and 371 with prior approval of the faculty advisor.
        - Geological Sciences 172H, 173H, and 379H may substitute for Environmental Science 271 and 371 with prior approval of the faculty advisor.
        - Natural Sciences 323 and 371 may substitute for Environmental Science 271 and 371 with the prior approval of the faculty advisor.
6. Mathematics: Mathematics 408C, 408N and 408S, or 408K and 408L.
7. Chemistry: Chemistry 301 or 301C and 302 or 302C.
8. Physics: Physics 317K and 117M, Physics 303K and 103M, or Physics 301 and 101L.
9. Biological Sciences: Biology 311C and 311D, or 315H.

Geosciences

Requirements

A total of 126 semester credit hours is required.

Students must fulfill university general requirements, special requirements of the Jackson School, and requirements for all geosciences degree plans given earlier in this section. They must also earn a grade of at least C- in each course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information Catalog.

The following 36 semester hours of coursework are required; these hours must include at least 12 hours of approved upper-division work in geological sciences.

j. Geological Sciences 405 and 416K
k. Mathematics 408D or 408M. Geosciences majors may not use the same coursework to satisfy both requirements 5 and 11.
l. One climate and water course: Geological Sciences 347D, 347G, 376E, 476K, 476M, 376S, or 377P. Geological Sciences 371T (any topic) may count with prior approval of the faculty advisor. Please note:
    - Geosciences majors may not use the same coursework to satisfy both requirements 3 and 12.
    - Geosciences majors may not use the same coursework to satisfy both requirements 5 and 12.
m. One field course: Geological Sciences 348K, 376L, or 660A and 660B.
n. Nine additional semester hours of upper-division elective coursework in geological sciences not otherwise used to satisfy either prescribed or other major requirements.
o. Enough additional coursework to make a total of 126 semester hours.